UNIVERSAL STAND-ALONE MOBILE PHONE BACKUP DEVICE

Abstract: A universal stand-alone device allowing the backup and restoration of user information stored on the phone and phone SIM (Subscriber Identity Module). Communication between the device and phone may take place via infrared (4), radio or electrical connection (5) via an appropriate adapter connector (7). Where data formats are compatible or conversion can take place the information may be restored to a phone of a different model or manufacturer. The device is operated via two-buttons (2 and 3) and interaction with the user is facilitated via the status display (1).
UNIVERSAL STAND-ALONE MOBILE PHONE BACKUP DEVICE

This invention relates to the user specific information stored on a mobile phone and the related SIM (Subscriber Identity Module). This information may consist of phone book entries, SMS (Short Message Service) messages, personalised ring-tones, start-up and group graphics, calendar entries along with any other information the user inputs or receives.

The user accumulates this information over the lifetime of the phone ownership. However if the phone is lost, stolen or damaged this information is lost. In such circumstances the information has to be re-input or re-acquired by the user with some information being permanently lost.

An object of this invention is to allow the user to keep a safe copy of this information for restoration purposes should one of the above circumstances occur.

Accordingly, this invention provides a universal stand-alone device that allows the user to backup and at a later date restore the above mentioned user specific information.

Preferably the device will allow communication with the phone via infrared, radio or electrical connection. The device should also preferably allow the user to select what information to backup along with the ability restore that information to a different phone where data formats are compatible or conversion is possible.

A preferred embodiment of the invention will now be described with reference to the accompanying drawing in which:

FIGURE 1 shows an isometric view of the device along with an accompanying adapter connector;

FIGURE 2 shows electrical connection between the device and mobile phone via an adapter connector.
As shown in Figure 1, the device comprises of a status display 1, two buttons 2 & 3, an infrared transceiver 4, an electrical connector 5 and a removable back panel 6.

Internally the device consists of a microcontroller, radio transceiver and a non-volatile memory powered by a battery, the removable back panel 6 allows access to the battery for replacement purposes.

Communication between the device and mobile phone ideally takes place via the infrared transceiver 4 or the internal radio transceiver. Where the target mobile phone does not have either capability, communication may take place via the electrical connector 5.

In order for the device to allow connection to phones from different manufacturers, electrical connection requires an appropriate adapter connector 7. The connector accommodates physical and electrical interconnection between the devices electrical connector 5 and the mobile phone 8, as shown in Figure 2.

The devices microcontroller and accompanying firmware is responsible for managing communications via the above mentioned interfaces, facilitating user operation via the status display 1 and buttons 2 & 3, the storage and retrieval of information from the non-volatile memory along with conversion of stored information when required for heterogeneous restore operations.

With regards to device operation, when not in use the device is in an “off” state where the status display 1 is inactive. By pressing either button 2 & 3 the user turns the device “on”, ready for a backup or restore operation to take place. After an idle period of no activity has expired the device reverts back to the “off” state.

Backup and restore operations are initiated by the user via the backup 2 and restore 3 buttons. In order to prevent accidental activation of a backup or restore operation either button has to be held down for a set period of time for the operation to take place. Prior to initiating either operation the user can select what information to backup or restore by cycling through the combinations by pressing both buttons 2 & 3 simultaneously.

The status display 1 provides user feedback on the progress of the current operation along with any error annunciation’s such as the device memory being full or an error condition occurring on the communications link.
CLAIMS

1. A universal stand-alone mobile phone backup device that allows the backup and restoration of mobile phone user information via multiple communication interfaces.
2. A universal stand-alone mobile phone backup device as claimed in 1 wherein electrical communication is facilitated via an adapter connector.
3. A universal stand-alone mobile phone backup device as claimed in any preceding claim wherein the device provides data conversion for heterogeneous mobile to mobile information transfer.
4. A universal stand-alone mobile phone backup device as claimed in any preceding claim wherein operation is facilitated via a two-button interface.
5. A universal stand-alone mobile phone backup device substantially as herein described and illustrated in the accompanying drawings.
INTERNATIONAL SEARCH REPORT

A. CLASSIFICATION OF SUBJECT MATTER

IPC 7 H04M1/2745

According to International Patent Classification (IPC) or to both national classification and IPC.

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC 7 H04M

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched.

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

PAJ, EPO-Internal, WPI Data

C. DOCUMENTS CONSIDERED TO BE RELEVANT

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<td>A</td>
<td>EP 1 191 767 A (AOYAMA) 27 March 2002 (2002-03-27) abstract column 3, line 36 -column 4, line 51 column 5, line 43 -column 6, line 2 column 7, line 40 - line 56 column 8, line 9 - line 16 figures 1,2</td>
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Date of the actual completion of the international search: 23 May 2003

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